



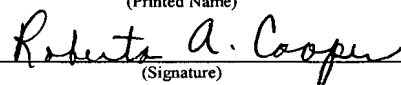
02-11-05

Application Serial No. 10/803,491

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**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Applicant: Flores-Lira et al.  
  
Title: PRODUCTION OF  
TETRABASIC LEAD  
SULFATE FROM SOLID  
STATE REACTIONS FOR  
THE PREPARATION OF  
ACTIVE PLATES TO BE  
USED IN LEAD-ACID  
BATTERIES

<b>CERTIFICATE OF EXPRESS MAILING</b>	
I hereby certify that this correspondence is being deposited with the United States Postal Service's "Express Mail Post Office To Addressee" service under 37 C.F.R. § 1.10 on the date indicated below and is addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.	
EV 459163971 US (Express Mail Label Number)	02/10/05 (Date of Deposit)
Roberta A. Cooper (Printed Name)	
 (Signature)	

Appl. No.: 10/803,491  
  
Filing Date: 03/19/2004  
  
Examiner: Ardith E. Hertzog  
  
Art Unit: 1754  
  
Confirmation No.: 5687  
  
Atty. Dkt. No.: 054821-9007

**INFORMATION DISCLOSURE STATEMENT**  
**UNDER 37 CFR §1.56**

Mail Stop AMENDMENT  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

Submitted herewith on Form PTO/SB/08 is a listing of documents known to Applicants in order to comply with Applicants' duty of disclosure pursuant to 37 CFR §1.56.

A copy of each non-U.S. patent document and each non-patent document is being submitted to comply with the provisions of 37 CFR §1.97 and §1.98.

The submission of any document herewith, which is not a statutory bar, is not intended as an admission that such document constitutes prior art against the claims of the

present application or that such document is considered material to patentability as defined in 37 CFR §1.56(b). Applicants do not waive any rights to take any action which would be appropriate to antedate or otherwise remove as a competent reference any document which is determined to be a *prima facie* art reference against the claims of the present application.

#### **TIMING OF THE DISCLOSURE**

The listed documents are being submitted in compliance with 37 CFR §1.97(c), before the mailing date of either a final action under 37 CFR §1.113, a notice of allowance under 37 CFR §1.311, or an action that otherwise closes prosecution in the application.

#### **RELEVANCE OF EACH DOCUMENT**

The relevance of the foreign-language documents is described in English-language abstracts for the documents provided herewith. An English translation of the foreign-language documents is not readily available. However, the absence of such translation does not relieve the PTO from its duty to consider the submitted foreign language documents (37 CFR §1.98 and MPEP §609).

Applicants respectfully request that any listed document be considered by the Examiner and be made of record in the present application and that an initialed copy of Form PTO/SB/08 be returned in accordance with MPEP §609.

#### **FEE**


A fee in connection with submission of an information disclosure statement under 37 CFR §1.97(c) in the amount of \$180.00 in accordance with 37 CFR §1.17(p) is attached.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 CFR §§ 1.16-1.17, or credit any overpayment, to

Deposit Account No. 06-1447. Should no proper payment be enclosed herewith, as by a check being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 06-1447.

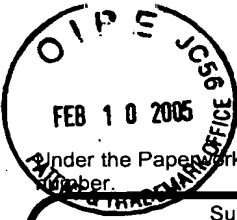
Respectfully submitted,

Date 2/10/2005

By 

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MODIFIED PTO/SB/08 (08-00)

Approved for use through 10/31/2002. OMB 0651-0031

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

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**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

Date Submitted: February 10, 2005

(use as many sheets as necessary)

Sheet 1 of 4

**Complete if Known**

Application Number	10/803,491
Filing Date	3/19/2004
First Named Inventor	Flores-Lira et al.
Group Art Unit	1754
Examiner Name	Ardith E. Hertzog
Attorney Docket Number	054821-9007

**U.S. PATENT DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code <sup>2</sup> (if known)			
	A1	2004/0234852	A1	Klein et al.	11-25-2004	
	A2	2004/0121233	A1	Klein et al.	06-24-2004	
	A3	6,454,977	B1	Kwok et al.	09-24-2002	
	A4	6,442,811	B1	Dawood et al.	09-03-2002	
	A5	6,274,274	B1	Schaeffer et al.	08-14-2001	
	A6	6,168,661	B1	Dinkelman	01-02-2001	
	A7	6,014,798		Nitsche et al.	01-18-2000	
	A8	5,998,062		Olson	12-07-1999	
	A9	5,958,621		Kao	09-28-1999	
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	A11	5,660,600		Vyas	08-26-1997	
	A12	5,447,809		Hafner et al.	09-05-1995	
	A13	5,443,601		Doeff et al.	08-22-1995	
	A14	5,382,482		Suga et al.	01-17-1995	
	A15	5,368,961		Juergens	11-29-1994	
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	A17	5,290,359		Coonen et al.	03-01-1994	
	A18	5,273,554		Vyas	12-28-1993	
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	A21	5,120,620		Nelson et al.	06-09-1992	
	A22	5,096,611		Matthew et al.	03-17-1992	
	A23	5,092,404		Falsk et al.	03-03-1992	
	A24	5,091,273		Hug et al.	02-25-1992	
	A25	5,047,300		Juergens	09-10-1991	
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	A27	5,021,166		Torpey	06-04-1991	
	A28	5,002,700		Otagawa et al.	03-26-1991	
	A29	4,902,532		Seo	02-20-1990	
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	A31	4,867,886		Botkins, Jr.	09-19-1989	
	A32	4,780,379		Puester	10-25-1988	
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	A37	4,656,706		Mahato et al.	04-14-1987	
	A38	4,648,177		Uba et al.	03-10-1987	
	A39	4,637,966		Uba et al.	01-20-1987	
	A40	4,618,478		McKinney	10-21-1986	
	A41	4,606,982		Nelson et al.	08-19-1986	
	A42	4,551,401		Wilson	11-05-1985	

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Examiner  
SignatureDate  
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				Application Number		10/803,491
				Filing Date		3/19/2004
				First Named Inventor		Flores-Lira et al.
				Group Art Unit		1754
				Examiner Name		Ardith E. Hertzog
Sheet	2	of	4	Attorney Docket Number		054821-9007

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A45	4,475,453		Davis	10-09-1984
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A87	3,194,685		Malloy	07-13-1965

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Examiner Signature	Date Considered
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				Group Art Unit		1754
				Examiner Name		Ardith E. Hertzog
Sheet	3	of	4	Attorney Docket Number		054821-9007

### U.S. PATENT DOCUMENTS

U.S. Patent Document					
	A88	3,186,871		Donohue	06-01-1965
	A89	3,169,890		Voss et al.	02-16-1965
	A90	3,104,946		Veal	09-24-1963
	A91	3,001,013		Stanton	09-19-1961
	A92	2,717,903		Ruth	09-13-1955
	A93	2,182,479		Johnstone	12-05-1939
	A94	2,165,944		Scott	07-11-1939
	A95	2,159,226		Reid	05-23-1939
	A96	1,572,586		Weir	02-09-1926

### FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document			Name of Patentee or Applicant of Cited Documents	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>6</sup>
		Office <sup>3</sup>	Number <sup>4</sup>	Kind Code <sup>5</sup> (if known)				
	A97	WO	02/069418	A1	Nitsche et al.	09-06-2002		
	A98	EP	0707718		Preuss	04-24-1996		
	A99	JP	63-269456		Morimoto	11-07-1988		
	A100	ES	8801559		Rheinmetall GMBH (DE)	04-01-1988		
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	A102	JP	59-101773		Tamaru	06-12-1984		
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	A104	WO	8200258	A1	Koczka et al.	02-04-1982		
	A105	GB	1014694		Barnes et al.	12-31-1965		
	A106	FR	723018		Thomson	04-01-1932		

### NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.) date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>6</sup>
	A107	GRUGEON-DEWAELE, S., LARUELLE, S., JOLIVEAU-VALLAT, F., TORCHEUX, DELAHAYE-VIDAL, A., "Synthesis and Electrochemical Performances of Tribasic and Tetrabasic Lead Sulfates Prepared by Reactive Grinding", Journal of Power Sources 72, 1998, pages 126-131.	
	A108	VILHUNEN, J.K., HORNYTZKY, S. and TUMMAVUORI, J. "The Influence of the Raw Material and Production Method on the Morphology, Microstructure, Chemical and Phase Composition of Tetrabasic Lead Sulfate Pastes", Journal of Power Sources, Volume 39, 1992, pages 59-65.	
	A109	PAVLOV, D. and KAPKOV, N., "Lead-Acid Battery Pastes Containing 4PbO - PbSO <sub>4</sub> and Pb <sub>3</sub> O <sub>4</sub> ", J. Electrochemical Society, Volume 137, No. 1, January 1990, pages 16-28.	

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Examiner Signature	Date Considered
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	A110	YARNELL, C.F. and WEEKS, M.C., "The Oxidation of Tetrabasic Lead Sulfate to Lead Dioxide in the Positive Plate of the Lead-Acid Battery", Journal of the Electrochemical Society, January 1979, Vol. 126, No. 1, pp. 7-11.	
	A111	MCCABE, W.L. and SMITH, J.C., "Unit Operations of Chemical Engineering" third edition, McGraw-Hill Book Company, 1976, 5 pages.	
	A112	PAVLOV, D. and PAPAHOV, G., "Dependence of the Properties of the Lead-Acid Battery Positive Plate Paste on the Processes Occurring During Its Production" Journal of Applied Electrochemistry, Volume 6, No. 4, July 1976, pages 339-345.	
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	A114	BURBANK, J., "Anodic Oxidation of the Basic Sulfates of Lead" Journal of the Electrochemical Society, Volume 113, No. 1, January 1966, pages 10-14.	

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